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22. A multi-layer dielectric layer over a substrate for use in dual-damascene applications as recited in claim 21, wherein the barrier layer is one of a silicon nitride layer and a silicon carbide layer.

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23. A multi-layer dielectric layer over a substrate for use in dual-damascene applications as recited in claim 22, wherein the inorganic dielectric layer is one of an un-doped TEOS oxide and a fluorine doped oxide.

24. A multi-layer dielectric layer over a substrate for use in dual-damascene applications as recited in claim 23, wherein the low dielectric constant layer is a carbon doped oxide.

PLEASE CANCEL CLAIM 25.

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26. (New) A multi-layer dielectric layer over a substrate for use in dual-damascene applications as recited in claim 24, wherein the inorganic dielectric layer has different material properties than the low dielectric constant layer.

27. (New) A multi-layer dielectric layer over a substrate for use in dual-damascene applications as recited in claim 26, wherein a thickness of the inorganic dielectric layer is about 4500 Angstroms.

28. (New) A multi-layer dielectric layer over a substrate for use in dual-damascene applications as recited in claim 27, wherein a thickness of the low dielectric constant layer is about 5000 Angstroms.

29. (New) A multi-layer dielectric layer over a substrate for use in dual-damascene applications as recited in claim 26, wherein a thickness of the low dielectric constant layer is greater than a thickness of the inorganic dielectric layer.

30. (New) A multi-layer dielectric layer over a substrate for use in dual-damascene applications as recited in claim 29, wherein the thickness of the inorganic dielectric layer is about at least 1,000 Angstroms, and the thickness of the low dielectric constant layer and the inorganic dielectric layer is about 10,000 Angstroms.

31. (New) A multi-layer inter-metal dielectric semiconductor structure, comprising:

a barrier layer disposed over a base dielectric layer;

an inorganic dielectric layer of an un-doped TEOS oxide disposed over the barrier layer;

a low dielectric constant layer of a carbon doped oxide disposed directly over the inorganic dielectric layer;

wherein the low dielectric constant layer is configured to receive metallization line trenches and the inorganic dielectric layer is configured to receive vias during a dual-damascene process.

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32. (New) A multi-layer inter-metal dielectric semiconductor structure as recited in claim 31, wherein a thickness of the inorganic dielectric layer of an un-doped TEOS oxide is about 4500 Angstroms.

33. (New) A multi-layer inter-metal dielectric semiconductor structure as recited in claim 32, wherein a thickness of the low dielectric constant layer of a carbon doped oxide is about 5000 Angstroms.

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34. (New) A multi-layer inter-metal dielectric semiconductor structure as recited in claim 31, wherein a thickness of the low dielectric constant layer of a carbon doped oxide is greater than a thickness of the inorganic dielectric layer of an un-doped TEOS oxide.

35. (New) A multi-layer inter-metal dielectric semiconductor structure as recited in claim 34, wherein the thickness of the inorganic dielectric layer of an un-doped TEOS oxide is about at least 1,000 Angstroms, and the thickness of the low dielectric constant layer of a carbon doped oxide and the inorganic dielectric layer of an un-doped TEOS oxide is about 10,000 Angstroms.

36. (New) A dielectric structure for dual-damascene applications, comprising:

a barrier disposed over a base dielectric;

an inorganic dielectric layer of a fluorine doped oxide disposed over the barrier;

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a low dielectric constant layer of a carbon doped oxide disposed directly over the inorganic dielectric layer;

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wherein the low dielectric constant layer is configured to receive metallization line trenches and the inorganic dielectric layer is configured to receive vias during a dual-damascene process.

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37. (New) A dielectric structure for dual-damascene applications as recited in claim 36, wherein a thickness of the inorganic dielectric layer of a fluorine doped oxide is about 4500 Angstroms.

38. (New) A dielectric structure for dual-damascene applications as recited in claim 37, wherein a thickness of the low dielectric constant layer of a carbon doped oxide is about 5000 Angstroms.

39. (New) A dielectric structure for dual-damascene applications as recited in claim 36, wherein a thickness of the low dielectric constant layer of a carbon doped oxide is greater than a thickness of the inorganic dielectric layer of a fluorine doped oxide.

40. (New) A dielectric structure for dual-damascene applications as recited in claim 39, wherein the thickness of the inorganic dielectric layer of a fluorine doped oxide is about at least 1,000 Angstroms, and the thickness of the low dielectric constant layer of a carbon doped oxide and the inorganic dielectric layer of a fluorine doped oxide is about 10,000 Angstroms.